BB-265

I 007282

I00 7282
-001

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND GAME

6/19/98

PESTICIDE LABORATORY REPORT

1701 Nimbus Road, Suite F
Rancho Cordova, California 95670

Lab No: P- 1904 Date Received: September 9, 1997

E.P. No. D9707730 Sample: coyote

To: Mr. Eric York Report Date: February 10, 1998
U.S. Dept. Of Interior
National Park Service
Santa Monica Mountains National. Rec. Area
30401 Agoura Rd., Ste. 100
Agoura Hills, CA 91301

Remarks

As part of a study of large carnivores, the National Park Service has bee[illegible] ring[illegible] coyotes, *Canis latrans*, bobcats, *Lynx rufus*, and gray fox, *Urocyon cinereoargenteus*, in the Santa Monica Mountains National Recreation Area in Los Angeles and Ventura Counties. The radio collars are equipped with mortality indicators which allow for quick retrieval of dead animal[illegible] from the study indicates that the home ranges of many of the animals overlap both urban development and range/wildland.

Background

The carcass of a coyote pup (C38) was recovered on August 25, 1997 from a streambed about 200 yards west of Las Virgenes Road, south of Agoura Hills in Los Angeles County. This pup was a sibling of coyote number C44 (PIU case: P-1897), which was found on August 15, 1997. The mortality timer on the radio collar for C38 indicated that it died on August 23, 1997. This pup was first trapped and collared on July 8th 1997. During the time that it was being monitored by telemetry this pup remained within the home range of its parents, but it generally was not found in association with its sibling (C44). Tissues from the pup were sent to the Department of Fish and Game Pesticide Investigations Unit (PIU) for analysis to determine the presence of pesticide residues.

RESULTS OF EXAMINATION

A necropsy report, provided to the PIU, along with blood and liver tissues indicated the following:

A) There were no external visible signs of trauma or gross lesions.
B) Upon skinning the animal there were no visible puncture wounds or other indications that the animal had been shot.
C) Free blood was present in the thoracic and abdominal cavities.
D) The lungs were congested and oozed blood where cut. The liver and kidneys also appeared to be congested and oozed blood.

The blood and liver tissues were submitted for analysis to determine if the animal had been exposed to anticoagulants. Trace concentrations of brodifacoum were found in the liver sample.

ISB recd 6/23/98

1 OF 2

Conclusion

Brodifacoum is a "second generation" anticoagulant generally only requiring a single exposure to produce a toxic effect. The LD50 for commensal rodents is approximately 0.27 ppm. LD50 values for dogs range from 0.25 ppm to 1 ppm. Brodifacoum may remain in the body of a canid for up to 180 days following ingestion (Miller 1984). During this period it will continue to interfere with the production of clotting factors in the animal's blood and can result in potentially lethal hemorrhage. The susceptibility of the individual animal may depend on several factors including age, and overall state of health. This pup was probably exposed to the same source of brodifacoum at the same time as its sibling but it lived longer because of its size and overall better body condition. Based on the detection of brodifacoum in the liver, and the presence of free blood throughout the body cavities and organs of the animal, it is highly probable that this loss was due to exposure to the rodenticide brodifacoum. Based on the circumstances of the case I cannot determine if this exposure is primary or secondary in nature.

Chemical analyses performed by the University of California Davis, Veterinary Diagnostic Laboratory and the Animal Heath Diagnostic Laboratory, Minnesota State University.

PESTICIDE INVESTIGATIONS UNIT
OFFICE OF SPILL PREVENTION AND RESPONSE

By _____
Robert C. Hosea, ESIII
Principal Investigator

Approved _____
Brian Finlayson, Chief
Pesticide Investigations Unit

Literature Cited:

Miller, J.G. 1984. The treatment of Accidental Anticoagulant Toxicity in the Canine. Proceedings: Vertebrate Pest Conference, Sacramento CA, 6-8 March, Vol 11. pp:99-100

cc: Mr. E. Leon Spaugy
Los Angeles County Agricultural Commissioner
3400 La Madera Ave.
El Monte, CA 91732-2696

Mr. W. Earl McPhail
Ventura County Agricultural Commissioner
P.O. Box 889
Santa Paula, CA 93061-0889

Mr. Jon Shelgren
California Department of Pesticide Regulation

Mr. Ben Gonzales, DVM
Department of Fish and Game
Wildlife Investigations Laboratory